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SENATE

REPORT
100–256

AMENDING THE NATIONAL ENERGY CONSERVATION POLICY ACT TO IMPROVE THE FEDERAL ENERGY MANAGEMENT PROGRAM AND FOR OTHER PURPOSES

DECEMBER 15, 1987.—Ordered to be printed

Mr. JOHNSTON, from the Committee on Energy and Natural Resources, submitted the following

REPORT

[To accompany S. 1382]

The Committee on Energy and Natural Resources, to which was referred the bill (S. 1382) to amend the National Energy Conservation Policy Act to improve the Federal Energy Management program and for other purposes, having considered the same, reports favorably thereon with amendments to the text and recommends that the bill, as amended, do pass.

The amendments are as follows:

1. On page 3, line 14, replace the text of subsection (2) with the following:

> The term "community of Federal buildings" means a collection of Federal buildings and the energy consuming support systems for those building collections.

2. On page 3, line 24, following "improve" insert "energy efficiency and are", and on line 25, strike "efficiency" and insert in lieu thereof "effective,".

3. On page 4, line 2, insert a period after the word "activities" and strike all following thru line 5.

4. On page 4, line 13, replace the text of subsection (6) with the following:

> The term "Federal building" means any building, structure, or facility, or part thereof, and including the associat-

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ed energy consuming support system, which is owned or leased by the United States, and which consumes energy.

5. On page 5, line 5, replace the text of subsection (9) with the following:

The term "cogeneration" shall have the same definition as in section 3(18)(A) of the Federal Power Act (16 U.S.C. 796(18)).

6. On page 5, strike lines 13 through 21.

7. On page 6, line 9, replace the text of paragraph (1) with the following:

establish practical and effective present value methods for estimating and comparing life cycle costs for Federal buildings or communities of Federal buildings, using the sum of all capital and operating expenses of such buildings over the expected life of the proposed energy conservation measure or twenty-five years, whichever is shorter, and using average fuel costs and a discount rate as determined by the Secretary; and

8. On page 6, line 21, before the word "In", insert "(1)", and page 7, after line 2, insert the following:

(2) USE IN LEASED BUILDINGS.—In leasing buildings for its own use or that of another agency, each agency shall give appropriate preference to buildings which minimize life cycle costs.

9. On page 7, line 13, strike section 547, correct all references, and renumber the following sections accordingly.

10. On page 7, line 25, insert a period after the word "measures", and strike all to the end of the section, and insert the following new sentence:

Such dollar savings shall remain available for obligation without further appropriation to undertake additional energy conservation measures.

11. On page 8, line 14, delete all from "the" through the end of the sentence, and insert in lieu thereof the following:

agencies represented on the interagency committee organized under section 656 of the Department of Energy Organization Act (42 U.S.C. 7266).

12. On page 9, after line 12, insert a new subsection (d) as follows:

"(d) The Task Force shall, from time to time, as may be necessary, review the regulations relating to building temperature settings to determine whether or not changes in such regulations would be appropriate to meet the goals of the Act.

13. On page 9, line 24, following "1985." add the following new text:

Except that a building, and the associated energy consumption and gross square footage, that houses energy in-

tensive activities may, at the discretion of the agency operating that building, be excluded from the requirements of this section. Each agency shall identify and list those buildings designated for exclusion from coverage under this section in its periodic report required in section 550.

14. On page 10, beginning on line 23, strike paragraph (7).

15. On page 12, following line 7, correct the Table of Contents to delete section 547, and renumber the following sections accordingly.

16. On page 12, line 11, strike "553" and insert "550" in lieu thereof, and following the word "Conservation" insert "Policy".

Purpose

As ordered reported, S. 1382 would strengthen the Federal Government's efforts to promote the conservation and efficient use of energy by the Federal Government.

Background and Need

In response to the energy crisis of the early 1970's, the Congress enacted a variety of laws designed to conserve energy throughout the Nation's economy. Among these laws, Title V, Part 3, of the National Energy Conservation Policy Act (NECPA) (42 U.S.C. 8201 *et seq.*) and Title III, Part F, of the Energy Policy and Conservation Act (EPCA) (42 U.S.C. 6201 *et seq.*) were enacted to promote the conservation and efficient use of energy by the Federal Government.

Title III, Part F, of EPCA required that the President:

—develop and implement Federal energy conservation procurement policies,

—develop and implement a 10-year plan for energy conservation in Federal buildings,

—develop and implement a public education program, and

—submit annual reports to Congress.

Title V, Part 3 of NECPA, required that the Secretary of Energy:

—develop methods for estimating and comparing life cycle costs of Federal buildings,

—establish energy performance targets for Federal buildings,

—conduct energy audits of all Federal buildings of over 30,000 square feet,

—undertake retrofit measures in all Federal buildings to minimize life cycle costs, and

—submit annual reports to Congress.

Since enactment of these laws, the Federal Government has accumulated substantial experience in energy conservation and the Nation's energy situation has changed. It is now appropriate to amend these laws to reflect this experience and the new energy situation. Other provisions need updating, such as the Federal buildings energy performance targets that expired in 1985 and which have not been renewed on a Governmentwide basis. Finally, new ideas, such as private sector financing of energy conservation measures and shared savings incentive programs, offer opportunities to enhance the Government's energy management program.

Although the Federal Government reduced its energy consumption by nearly 17 percent from 1975 to 1985, energy experts estimate that cost-effective investments in existing energy conservation technologies would reduce energy consumption in Federal buildings by an additional 25 percent. Given that the Federal Government spends nearly $4 billion annually for energy consumed in over 500,000 buildings, a 25-percent reduction in energy consumption suggests a potential budget savings of nearly $1 billion annually.

There are two major barriers to the achievement of these potential energy and budget savings: A lack of funding to finance specific energy conservation measures, and a lack of incentive for Federal officials to save energy.

The first barrier, a lack of funds, appears to have been lowered when Congress made private sector funds available to the Federal Government to finance energy efficiency improvements. In the private sector, banks and utilities have been willing to finance energy efficiency improvements in return for a share of the resulting savings. Unfortunately, the Federal Government was unable to enter into these so-called "shared savings" contracts until authorized by Title VIII of NECPA in December of 1985. Despite the availability of this new authority, and private funds, no such contracts have been signed.

Federal building managers apparently have little incentive to make investments in energy improvements. The reason for this second barrier to greater Federal energy and cost savings is that under current Federal budget practices, if an agency does save funds through efficiency improvements, then its budget is normally reduced by the amount of those savings. S. 1382 is designed to overcome this disincentive by requiring Federal agencies to establish incentive programs under which an agency would be permitted to retain all savings which result from its energy efficiency improvement efforts. These retained savings could be used only for additional energy efficiency improvements by the agency. Such retained savings would thus create an incentive for agencies to undertake energy efficiency improvements. Moreover, these retained savings would also provide an additional source of funding for future energy efficiency improvements, thus reducing the need for appropriations or for private sector financing.

In addition to requiring an incentive program, S. 1382 would also establish discretionary energy conservation targets for Federal buildings and automobiles, similar to the targets established by the President pursuant to section 381 of EPCA, but which expired in 1985 and were not renewed.

S. 1382 would establish a Federal Energy Management "Task Force" to more effectively collect and disseminate relevant energy efficiency information within the Federal Government. The bill would improve the life cycle cost methods under NECPA by allowing for a discount rate as determined by the Secretary, instead of having a fixed rate, and by assuring that life cycle cost calculations will accurately reflect present values. Current law requires agencies to perform energy audits of its buildings. However, because these audits have generally been completed, S. 1382 would allow agencies to perform additional audits on a discretionary basis. Fi-

nally, S. 1382 would consolidate the reporting requirements of EPCA and NECPA with regard to Federal energy management.

Legislative History

S. 1382 was introduced on June 17, 1987 by Senators Metzenbaum, Johnston, Evans and Fowler. Senators Bumpers, Weicker, Wirth, Matsunaga, Lugar and Heinz were subsequently added as cosponsors. The Subcommittee on Energy Regulation and Conservation held a hearing on the bill on July 30, 1987.

Committee Recommendations and Tabulations of Votes

The Committee on Energy and Natural Resources, in an open business session on December 2, 1987, by majority vote of a quorum present, recommended that the Senate pass S. 1382 as amended.

The rollcall vote on reporting the measure was 19 yeas, 0 nays as follows:

YEAS	NAYS
Mr. Johnston	
Mr. Bumpers	
Mr. Ford *	
Mr. Metzenbaum	
Mr. Melcher	
Mr. Bradley	
Mr. Bingaman	
Mr. Wirth	
Mr. Fowler	
Mr. Conrad	
Mr. McClure	
Mr. Hatfield	
Mr. Weicker	
Mr. Domenici	
Mr. Wallop	
Mr. Murkowski	
Mr. Nickles	
Mr. Hecht	
Mr. Evans	

* Indicates votes by proxy.

Committee Amendments

The Committee adopted 16 amendments, most of which are either technical or clarifying in nature and are self-explanatory. The exceptions are amendments 1, 10, 12 and 13, which are explained as follows:

Amendment 1: The definition of "community of Federal buildings" is established to reflect the fact that Federal buildings represent a diverse set of building types and functions beyond the traditional concept of a single residential or commercial building. Inclusion of the energy consuming support systems reflects the fact that collection of Federal buildings, or some buildings within the collection of buildings, may be served by a centralized system that consumes energy. The term implies that associated energy consumption for ancillary services, including, for example, parking lot light-

ing on a military base, should be considered as part of the energy consumed by the community of Federal buildings.

Amendment 10: A provision was added to make it explicit that savings retained under the incentive program of section 547 shall remain available for obligation without further appropriation for additional energy conservation measures. Under current budget practices unexpended funds appropriated for Federal building utility payments lapse at the end of the fiscal year. In order to be an effective incentive payment, the portion of such funds which are retained under the incentive program remain available as "no year" funds for future energy efficiency improvement projects.

Amendment 12: A paragraph is added directing the Task Force, established under section 549 of NECPA, to, from time to time, review the regulations relating to building temperature settings to determine whether or not changes in such regulations would be appropriate to meet the goals of the Act. This provision is added in lieu of section 550(b)(7), of the original text of S. 1382, which is deleted by amendment 14. Section 550(b)(7) would have reestablished the Federal building thermostat settings in effect on July 1, 1986, but which were relaxed on April 8, 1987.

Amendment 13: A provision was added to provide that buildings that house energy intensive activities may, at the discretion of the agency operating that building, be excluded from the goals established under section 549. The intention of this section is to allow agencies to exempt buildings to which these goals cannot be practicably applied because of the energy intensive nature of the activities being housed in such building, for example, certain activities of the Department of Energy, such as uranium enrichment and associated research and development activities. To guard energy against abuse of this exemption, each agency shall identify the exclusion of any agency buildings in its report to the Secretary as required in section 550.

Section-by-Section Analysis

Section 1. Short Title. This act may be cited as "Federal Energy Management Improvement Act."

Section 2. Amends V, Part 3, NECPA as follows:

Section 541. Findings

This section updates the findings of the existing law to recognize the cost savings benefits of Federal energy efficiency, in addition to the energy policy benefits. It acknowledges the availability of private financing for Federal energy conservation measures under Title VIII of NECPA. Finally, this section recognizes the opportunities for additional energy conservation in the Federal Government.

Section 542. Policy

This section restates the policy of the existing law. The policy of the United States is that the Federal Government has the opportunity and the responsibility, with the participation of industry, to promote the efficient use of energy by the Federal Government.

Section 543. Purpose

This section states that the purpose of this part is to promote energy conservation and the efficient use of energy by the Federal Government. This broadens the purpose of current law from just promoting life cycle cost methods and the use of renewable energy, to promoting all conservation and efficient uses of energy.

Section 544. Definitions

This section changes the definitions in current law in recognition of experience and changes in Federal energy management. For example, updated definitions are included for "community of Federal buildings", "energy conservation measure", "renewable energy sources", "cogeneration" and "performance contracting". No longer used terms such as, "preliminary energy audit" and "energy performance target", are deleted.

Section 545. Establishment of Life Cycle Cost Methods

This section closely parallels the same section in existing law, but it has been changed to refine those life cycle cost methods. For example: The use of marginal fuel costs is replaced with the use of average fuel costs, because they are a more practical measure of such costs; the discount rate used in these methods is as determined by the Secretary, instead of being fixed at 7 percent, as in current law; and it is clarified that the methods shall be "present value" methods which will more accurately reflect the value of energy efficiency improvements over time.

Under the current law, the Secretary of Energy, in consultation with the Director of the Office of Management and Budget, the Director of the National Bureau of Standards, and the Administrator of the General Services Administration, has developed life cycle cost methods and has prescribed them in a manual. It is not intended that this development process be reinitiated, only that the current life cycle cost methods and manual be reviewed and modified as necessary to conform with these amendments.

Section 546. Budget Treatment for Energy Conservation Measures

This section is essentially a restatement of section 549 of the existing law. It requires agencies to identify funds requested for energy conservation projects in their annual budget submissions to the Congress.

Section 547. Incentives for Agencies

This section requires that each agency shall establish a program of incentives that uses internal resources to encourage that agency to conserve and make more efficient use of energy. The program shall consist of arrangements in which the agency building/energy managers retain a portion of the dollar savings which result from their energy conservation measures and that such retained dollar savings shall remain available to the agency to undertake additional conservation measures.

The specific design of these incentive programs are flexible to allow agencies to respond to their specific needs. Nevertheless, it is required that such programs be established and that they provide

for the retaining of savings to be used in future energy conservation projects. It is anticipated that the amount of retained savings will be sufficient to create an incentive to undertake the proposed energy conservation projects. It therefore is anticipated that agencies may find it necessary to negotiate with agency building managers the portion of savings retained on a project-by-project basis. Retained savings may only be used for additional energy conservation measures.

The calculation of savings from which incentives are to be derived as retained funds, may be based on the life cycle cost methods used to originally justify the project, or in the case of private financing, on the terms of the financing contract. But in no event may the incentives exceed appropriated funds.

Section 548. Interagency Energy Management Task Force

This section establishes and describes the duties of an Interagency Energy Management Task Force composed of agency energy managers. The Task Force is intended to support and assist the interagency committee on energy conservation policy established under section 656 of the Department of Energy Organization Act by providing the expertise and experience of "hands on" energy managers.

The success of the Government's energy management program depends not just on policy considerations, but on resources being dedicated to specific tasks such as data collection, training, communications, and problem solving. For example, the Task Force could be directed by the committee to determine why the shared savings authority under Title VIII of NECPA has not been more widely used and to make recommendations on encouraging its use.

One specific task of the Task Force is from time to time, as may be necessary, to review the Federal regulations relating to building temperature settings to determine whether or not changes would be appropriate to meet the goals of the Act.

Section 549. Energy Management Goals

This section establishes discretionary energy management goals for the improvement of energy efficiency in Federal buildings and passenger vehicles, similar to the energy conservation targets established pursuant to section 381(a)(2) of EPCA but which expired in 1985. This section further outlines the steps which agencies should take to achieve the goal of a 10 percent energy savings over the 1985–1995 period.

Because of the unusual energy use patterns associated with activities being housed in certain Federal buildings, such as certain energy research and uranium enrichment activities, or the operational nature of the activities in the building, an agency may determine that energy conservation is not practicable. In such cases, that agency may, at its discretion, exclude that building from the provisions of this section. However, the agency must identify and list all such excluded buildings in its report to the Secretary as required under section 550.

Section 550. Reports

This section requires that each agency report to the Secretary on its activities under this part and on its activities under section 381(a)(2) of EPCA. This section further requires that the Secretary make an annual report to Congress on all activities under this part. It is anticipated that this report will be a consolidation of the existing reports under this part and section 381 of EPCA, except that reporting requirements are added to reflect the new provisions of this part, such as the results of the incentive program under section 547.

Section 3. Amends the Table of Contents of NECPA.

Section 4. Amends section 381(c) of EPCA to consolidate the report required by that section with the report required by section 550 of this Act.

Cost and Budgetary Considerations

In compliance with paragraph 11(a) of Rule XXVI of the Standing Rules of the Senate, the following estimate of the cost of this measure has been provided by the Congressional Budget Office:

CONGRESSIONAL BUDGET OFFICE
U.S. CONGRESS
WASHINGTON, D.C. 20515

December 9, 1987

Honorable J. Bennett Johnston, Jr.
Chairman
Committee on Energy and Natural Resources
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

The Congressional Budget Office has prepared the attached cost estimate for S. 1382, the Federal Energy Management Improvement Act.

If you wish further details on this estimate, we will be pleased to provide them.

With best wishes,

Sincerely,

Edward M. Gramlich
Acting Director

cc: Honorable James A. McClure
Ranking Minority Member

CONGRESSIONAL BUDGET OFFICE

COST ESTIMATE

December 9, 1987

1. BILL NUMBER: S. 1382

2. BILL TITLE: Federal Energy Management Improvement Act

3. BILL STATUS:

As ordered reported by the Senate Committee on Energy and Natural Resources, December 2, 1987.

4. BILL PURPOSE:

The bill would promote conservation of energy within the federal government by requiring: (1) the establishment and use of life cycle cost methods for energy conservation in federal buildings, (2) the establishment of a program of incentives for conservation of energy by each federal agency, (3) the creation of an interagency task force on federal energy management, and (4) the establishment of energy performance goals for federal buildings and for federal automobiles. As part of the incentives program, agencies would retain a portion of the savings that result from their energy conservation measures. The retained savings would remain available to agencies for obligation, without further appropriation, to undertake additional energy conservation measures.

5. ESTIMATED COST TO THE FEDERAL GOVERNMENT:

(by fiscal year, in millions of dollars)

	1988	1989	1990	1991	1992
Estimated Authorization Level	*	-10	-30	-75	-110
Estimated Outlays	*	-10	-30	-75	-110

* Less than $500,000.

The cost savings for this bill would be spread across several agencies and budget functions, and would reduce the deficit only if appropriations are correspondingly reduced. The Department of Defense accounts for most of the federal government's energy consumption. As a result, most of the savings that would result from enactment of S. 1382 would fall within budget function 050.

Basis of Estimate:

The primary impact on the budget from enactment of S. 1382 is a potential reduction in expenditures for federal energy consumption resulting from the bill's provision to establish a program of incentives for energy savings by federal agencies. The incentives program would likely result in a significant

use of shared energy savings contracts to reduce outlays for energy use in federal buildings. Agencies would enter into such contracts with private firms that would implement energy conservation measures. The agencies and private firms would share the cost savings that result. Shared energy savings contracts are authorized under existing law, but none have been implemented yet.

Based on information provided by the Department of Energy (DOE), the CBO estimates that enactment of S. 1382 would result in gross energy savings of $500 million to $1 billion over fiscal years 1988 through 1992. Such savings would be shared by the federal government and private firms that the government contracts with to provide the initial investments needed to attain the energy cost savings. CBO estimates the government's share of the energy savings will total approximately $250 million over the 1988-1992 period. The government's share in any cost savings would be very small initially--for example, 0 to 30 percent of gross cost savings in the first three years of a shared energy savings contract--because the private firms that contract with the government would probably require a relatively short payback period (about 3 to 5 years) for their initial investment.

The net cost savings obtained by the federal government through shared energy savings contracts would be further offset by additional federal expenditures on energy conservation. These additional expenditures would result from the incentives program required by the bill. Specifically, agencies would retain a portion of their net annual cost savings for reinvestment in energy conservation in future years. CBO estimates that the expenditures from retained savings would total about $25 million over the 1988-1992 period. As a result, CBO estimates that net federal outlays for energy consumption would decline by about $225 million over the next five years.

Enactment of S. 1382 may also result in additional administrative costs to meet the bill's requirements for monitoring and reporting on federal energy management. However, these additional costs would not exceed $500,000 per year.

6. ESTIMATED COST TO STATE AND LOCAL GOVERNMENTS: None.

7. ESTIMATE COMPARISON: None.

8. PREVIOUS CBO ESTIMATE: None.

9. ESTIMATE PREPARED BY: Pete Fontaine (226-2860)

10. ESTIMATE APPROVED BY:

James L. Blum
Assistant Director
for Budget Analysis

Regulatory Impact Evaluation

Although S. 1382 will require agencies to establish energy performance goals for building and vehicle energy efficiency, these are discretionary targets. This bill would not impose any additional Government-established standards. S. 1382 would not impose any economic responsibilities on private individuals or businesses.

No personal information would be collected in administering this Act, therefore, there would be no impact on personal privacy.

This legislation would consolidate two reports to Congress and it would eliminate a requirement that the Federal Government conduct an energy audit of all buildings of more than 30,000 square feet. These provisions would decrease Government paperwork. On the other hand, the legislation creates a Federal Interagency Energy Management Task Force and requires the establishment of agency energy efficiency incentive programs which would increase paperwork. Overall, it is unlikely that there would be a significantly net change in the amount of paperwork.

Executive Communications

The position of the Administration relating to S. 1382 was given in testimony before the Subcommittee on Regulation and Conservation on July 30, 1986.

Changes in Existing Law

In compliance with paragraph 12 of Rule XXVI of the Standing Rules of the Senate, changes in existing law made by the bill, S. 1382, as ordered reported, are shown as follows: (existing law proposed to be omitted in enclosed in black brackets, new matter is printed in italic, existing law in which no change is proposed is shown in roman):

Energy Policy and Conservation Act

(Public Law 94-163)

* * * * * * *

TITLE III—IMPROVING ENERGY EFFICIENCY

* * * * * * *

Part F—Other Federal Energy Conservation Measures

FEDERAL ENERGY CONSERVATION PROGRAMS

Sec. 381. (a)(1) The President shall, to the extent of his authority under other law, establish or coordinate Federal agency actions to develop mandatory standards with respect to energy conservation and energy efficiency to govern the procurement policies and decisions of the Federal Government and all Federal agencies and shall take such steps as are necessary to cause such standards to be implemented.

(2) The President shall develop and, to the extent of his authority under other law, implement a 10 year plan for energy conservation with respect to buildings owned or leased by an agency of the

United States. Such plan shall include mandatory lighting efficiency standards, mandatory thermal efficiency standards and insulation requirements, restrictions on hours of operation, thermostat controls, and other conditions of operation, and plans for replacing or retrofitting to meet such standards.

(b)(1) The Secretary shall establish and carry out a responsible public education program—

(A) to encourage energy conservation and energy efficiency; or

(B) to promote van pooling and carpooling arrangements.

(2) For purposes of this subsection:

(A) the term "van" means any automobile which the Secretary determines is manufactured primarily for use in the transportation of not less than 8 individuals and not more than 15 individuals.

(B) The term "van pooling arrangement" means an arrangement for the transportation of employees between their residences or other designated locations and their place of employment on a nonprofit basis in which the operating costs of such arrangement are paid for by the employees utilizing such arrangement.

[(c) The President shall submit to the Congress an annual report concerning all steps taken under subsections (a) and (b).]

(c) The Secretary shall include in the report required under section 550 of the National Energy Conservation Act the steps taken under subsections (a) and (b) of this section.

(d) The plan developed by the President pursuant to subsection (a)(2) shall be applicable to Executive agencies as defined in section 105 of title 5, United States Code, and to the United States Postal Service.

(e) In addition to funds authorized in any other law, there is authorized to be appropriated to the President for fiscal year 1978 not to exceed $25,000,000, and for fiscal year 1979 not to exceed $50,000,000, to carry out the purposes of subsection (a)(2).

* * * * * * *

NATIONAL ENERGY CONSERVATION POLICY ACT

(Public Law 95-619)

TITLE I—GENERAL PROVISIONS

SEC. 101. SHORT TITLE AND TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the "National Energy Conservation Policy Act".

(b) TABLE OF CONTENTS.—

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TITLE V—FEDERAL ENERGY INITIATIVES

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[Part 3—ENERGY CONSERVATION AND SOLAR ENERGY IN FEDERAL BUILDINGS

[Sec. 541. Findings.

[Sec. 542. Policy.
[Sec. 543. Purpose.
[Sec. 544. Definitions.
[Sec. 545. Establishments and use of life cycle cost methods.
[Sec. 546. Energy performance targets for Federal buildings.
[Sec. 547. Energy audits and retrofitting of existing Federal buildings.
[Sec. 548. Leased Federal buildings.
[Sec. 549. Budget treatment of energy conserving improvements by Federal agencies.
[Sec. 550. Reports.
[Sec. 551. Authorization of appropriations.]

PART 3—FEDERAL ENERGY MANAGEMENT

Sec. 541. Findings.
Sec. 542. Policy.
Sec. 543. Purpose
Sec. 544. Definitions.
Sec. 545. Establishment and use of life cycle cost methods.
Sec. 546. Budget treatment for energy conservation measures.
Sec. 547. Incentives for Agencies.
Sec. 548. Interagency Energy Management Task Force.
Sec. 559. Energy Management Goals.
Sec. 550. Reports.

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TITLE V—FEDERAL ENERGY INITIATIVES

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[PART 3—ENERGY CONSERVATION AND SOLAR ENERGY IN FEDERAL BUILDINGS

[SEC. 541. FINDINGS.

[The Congress finds that—

[(1) There is an urgent need to promote the design, construction, and operation of buildings to conserve and make more efficient use of fuels and energy;

[(2) a shift from dependence on nonrenewable to renewable energy sources would have a beneficial effect on the Nation's overall energy supply;

[(3) programs for energy conservation in buildings, along with the use of renewable energy sources, would stimulate industries and create new job opportunities for supply and servicing new or improved energy-conserving and energy-supplying systems and equipment;

[(4) in the construction or renovation of buildings, the cost of energy consumed over the life of such buildings must be considered as well as the initial cost of such construction or renovation; and

[(5) the Federal Government, the largest energy consumer in the United States, should be in the forefront in implementing energy conservation measures and in promoting the use of solar heating and cooling and other renewable energy sources.

[SEC. 542. POLICY.

[It is the policy of the United States that the Federal Government has the opportunity and responsibility, with the participation of industry, to further develop, demonstrate, and promote the use

of energy conservation, solar heating and cooling, and other renewable energy sources in Federal buildings.

[SEC. 543. PURPOSE.

[It is the purpose of this part to promote—

[(1) the use of commonly accepted methods to establish and compare the life cycle costs of operating Federal buildings, and the life cycle fuel and energy requirements of such buildings, with and without special features for energy conservation, and

[(2) the use of solar heating and cooling and other renewable energy sources in Federal buildings.

[SEC. 544. DEFINITIONS.

[For purposes of this part—

[(1) The term "Secretary" means the Secretary of Energy.

[(2) The term "life cycle cost" means the total costs of owning, operating, and maintaining a building over its useful life, including its fuel and energy costs, determined on the basis of a systematic evaluation and comparison of alternative building systems; except that in the case of leased buildings, the life cycle cost shall be calculated over the effective remaining term of the lease.

[(3) The term "preliminary energy audit" means a determination of the energy consumption characteristics of an existing Federal building, including the size, type, rate of energy consumption and major energy systems of such building and the climate characterizing the region where such building is located.

[(4) The term "energy survey" means a procedure to be used in determining energy conservation and cost savings likely to result from appropriate energy conserving maintenance and operating procedures and modifications, including the purchase and installation of particular energy-related fixtures to a Federal building.

[(5) The term "Federal Building" means any building, structure, or facility which is constructed, renovated or leased or purchased in whole or in part for use by the United States, and which includes a heating system, a cooling system, or both.

[(6) The term "construction" means construction and substantial reconstruction or renovation, as determined under rules prescribed by the Secretary.

[(7) The term "energy performance target" means a rate of energy consumption which is the minimum practically achievable, taking into account life cycle cost, by adjusting maintenance and operating procedures, or by modifying a Federal building's equipment or structure, or both.

[SEC. 545. ESTABLISHMENT AND USE OF LIFE CYCLE COST METHODS.

[(a) ESTABLISHMENT OF LIFE CYCLE COST METHODS.—The Secretary in consultation with the Director of the Office of Management and Budget, the Director of the National Bureau of Standards, and the Administrator of the General Services Administration, shall—

[(1) establish practical and effective methods for estimating and comparing life cycle costs for Federal buildings; and

[(2) develop and prescribe the procedures to be followed in applying and implementing the methods so established and in conducting preliminary energy audits required by section 547, using the sum of all capital and operating expenses associated with the energy system of the building involved over the expected life of such system or during a period of 25 years, whichever is shorter, and using marginal fuel costs as determined by the Secretary and a discount rate of 7 per centum per year.

[(b) USE OF LIFE CYCLE COSTS.—All new Federal buildings shall be life cycle cost effective as determined in accordance with the methods established under subsection (a). In the design of new Federal buildings, cost evaluation shall be made on the basis of life cycle cost rather than initial cost.

[(c) USE IN NON-FEDERAL STRUCTURES.—The Secretary shall make available to the public information on the use of life cycle cost methods in the construction of buildings, structures, and facilities in all segments of the economy.

[SEC. 546. ENERGY PERFORMANCE TARGETS FOR FEDERAL BUILDINGS.

[The Secretary, in consultation with the Administrator of the General Services Administration, the Director of the National Bureau of Standards, and the Director of the Office of Management and Budget, shall establish and publish energy performance targets for Federal buildings, and shall take such actions as may be necessary or appropriate to promote to the maximum extent practicable achievement of such targets by Federal buildings. The performance targets established under the preceding sentence shall be compatible with energy conservation performance standards adopted or developed by the Secretary of Housing and Urban Development for buildings.

[SEC. 547. ENERGY AUDITS AND RETROFITTING OF EXISTING FEDERAL BUILDINGS.

[(a) AUDITS OF BUILDINGS WITH 30,000 OR MORE SQUARE FEET.—As soon as possible after the date of the enactment of this part, each Federal agency shall conduct, to the maximum extent feasible, a preliminary energy audit, of all Federal buildings under its jurisdiction, occupancy, or control which contain 30,000 or more square feet of floor space, and shall furnish the results of such audit to the Secretary. The Secretary shall submit to the Congress a full report on all preliminary energy audits conducted under this subsection no later than August 15, 1979.

[(b) AUDITS OF FEDERAL BUILDINGS WITH 1,000 OR MORE BUT LESS THAN 30,000 SQUARE FEET.—As soon as possible after the completion of the preliminary energy audits required under subsection (a) (and concurrently with such audits to the maximum extent feasible in the case of any agency), each Federal agency shall conduct a preliminary energy audit of all Federal buildings under its jurisdiction, occupancy, or control which contain 1,000 or more but less than 30,000 square feet of floor space, and shall furnish the results of such audit to the Secretary. The Secretary shall submit to the Congress a full report on all preliminary energy audits conducted under this subsection no later than August 15, 1980.

[(c) RETROFIT OF FEDERAL BUILDINGS.—(1) Each Federal agency shall, in accordance with this subsection, select from each preliminary energy audit conducted by such agency under subsections (a) and (b) appropriate Federal buildings under its jurisdiction, occupancy, or control for retrofit measures to improve their energy efficiency in general and to minimize their life cycle cost. Such measures shall include, without being limited to, energy conservation measures, measures involving solar technology and other renewable energy resources, and any maintenance and operating procedures and particular energy-related modifications determined appropriate by an energy survey. In selecting the measures to be applied, Federal agencies shall give priority to changes in maintenance and operating procedures over measures requiring substantial structural modification or the installation of equipment.

[(2) At least 1 percent of the total gross square floor footage contained in all Federal buildings which are under the jurisdiction, occupancy, or control of Federal agencies, and which are included in a preliminary energy audit conducted by such agencies under subsections (a) and (b) shall be retrofitted by such agencies under paragraph (1) pursuant to actions taken or arrangements made by such agencies during the first full fiscal year beginning after the date of the enactment of this part; and an additional percentage of such total gross square footage equal to at least 1 percentage point higher than the percentage applicable under this paragraph in the preceding year shall be so retrofitted pursuant to actions taken or arrangements made during the second and third such fiscal years, with a view to achieving full compliance with paragraph (3) by the time specified therein.

[(3) On or before January 1, 1990, all Federal buildings which are under the jurisdiction, occupancy, or control of any Federal agency shall be the subject of such retrofit measures under paragraph (1) as will assure their minimum life cycle costs.

[SEC. 548. LEASED FEDERAL BUILDINGS.

[In leasing buildings for its own use or that of another Federal agency, each Federal agency shall give appropriate preference to buildings which use solar heating and cooling equipment or other renewable energy sources or which otherwise minimize life cycle costs.

[SEC. 549. BUDGET TREATMENT OF ENERGY CONSERVING IMPROVEMENTS BY FEDERAL AGENCIES.

[Each Federal agency, in the preparation and submission of its requests to the Congress for appropriations, and authorizations for appropriations, for any fiscal year beginning after the date of the enactment of this Act, shall specifically set forth and identify in a separate line item or items—

[(1) the funds requested for retrofit measures to be undertaken under this part; and

[(2) the portion of any other funds requested which represent to the maximum extent practicable the initial costs of construction or renovation attributable to capital equipment for energy conservation or the utilization of solar energy and other renewable energy sources.

[SEC. 550. REPORTS.

[Each Federal agency shall periodically furnish the Secretary with full and complete information on its activities under this part, and the Secretary shall annually submit to the Congress a comprehensive report on all activities under this part and on the progress made toward achievement of the objectives of this part.

[SEC. 551. AUTHORIZATION OF APPROPRIATIONS.

[There are authorized to be appropriated to the Secretary not to exceed $2000,000 for the fiscal year ending September 30, 1979, to enable him to perform the analytical and administrative functions vested in him under this part.]

PART 3—FEDERAL ENERGY MANAGEMENT

SEC. 541. FINDINGS.

The Congress finds that—

(1) the Federal Government is the largest single energy consumer in the Nation;'

(2) the cost of meeting the Federal Government energy requirement is substantial;

(3) there are significant opportunities in the Federal Government to conserve and make more efficient use of energy through improved operations and maintenance, the use of new energy efficient technologies, and through the application and the achievement of energy efficient design and construction;

(4) Federal energy conservation measures can be financed at little or no cost to the Federal Government using private investment capital made available through performance contracts as authorized by title VIII of the National Energy Conservation Policy Act; and

(5) an increase in Federal Government energy efficiency would benefit the Nation by reducing the cost of government, reducing national dependence on foreign energy resources, and demonstrating the benefits of greater energy efficiency to the Nation.

SEC. 542. POLICY.

It is the policy of the United States that the Federal Government has the opportunity and the responsiblity, with the participation of industry, to promote the efficient use of energy by the Federal Government.

SEC. 543. PURPOSE.

It is the purpose of this part to promote the conservation and the efficient use of energy by the Federal Government.

SEC. 544. DEFINITIONS.

For the purposes of this part—

(1) The term "agency" has the meaning given it in 5 U.S.C. 551(1).

(2) The term "community of Federal buildings" means a collection of Federal buildings and the energy consuming support systems for those building collections.

(3) The term "construction" means construction and substantial retrofitting or renovation.

(4) The term "energy conservation measures" means measures that are applied to a Federal building of community of Federal

buildings that improve energy efficiency and are life cycle cost effective and that involve energy conservation, cogeneration systems, renewable energy sources, improvements in operations and maintenance efficiencies, or retrofit activities.

(5) The term "energy survey" means a procedure to be used in determining energy and cost savings likely to result from uses of appropriate energy related maintenance and operating procedures and modifications, including the purchase and installation of particular energy-related equipment, and use of renewable energy sources.

(6) The term "Federal building" means any building, structure, or facility, or part thereof, and including the associated energy consuming support system, which is owned or leased by the United States, and which consumes energy.

(7) The term "life cycle cost" means the total costs of owning, operating, and maintaining a building over its useful life, including such costs as fuel, energy, labor, and replacement components, determined on the basis of a systematic evaluation and comparison of alternative building systems; except that in the case of leased buildings, the life cycle cost shall be calculated over the effective remaining term of the lease.

(8) The term "renewable energy sources" includes but is not limited to sources such as agriculture and urban waste, geothermal energy, solar energy, and wind energy.

(9) The term "cogeneration" shall have the same definition as in section 3(18)(A) of the Federal Power Act (16 U.S.C. 796(18)).

(10) The term "performance contracting" means a contract under which energy conservation measures are installed at reduced or no cost to the government and subsequent payments are linked to energy savings.

(11) The term "Secretary" means the Secretary of Energy.

SEC. 545. ESTABLISHMENT AND USE OF LIFE CYCLE COST METHODS.

(a) ESTABLISHMENT OF LIFE CYCLE COST METHODS.—The Secretary, in consultation with the Director of the Office of Management and Budget, the Secretary of Defense, the Director of the National Bureau of Standards, and the Administrator of the General Services Administration, shall—

(1) establish practical and effective present value methods for estimating and comparing life cycle costs for Federal buildings or communities of Federal buildings, using the sum of all capital and operating expenses of such buildings over the expected life of the proposed energy conservation measure or twenty-five years, whichever is shorter, and using average fuel costs and a discount rate as determined by the Secretary; and

(2) develop and prescribe the procedures to be followed in applying and implementing the methods so established.

(b) USE OF LIFE CYCLE COSTS.—(1) In the design of new Federal buildings and communities of Federal buildings, and the application of energy conservation measures to existing Federal buildings and communities of Federal buildings, selection of design or conservation alternatives by the Federal Government shall be made using life cycle cost methods and procedures established under subsection (a) of this section.

(2) USE IN LEASED BUILDINGS.—In leasing buildings for its own use or that of another agency, each agency shall give appropriate preference to buildings which minimize life cycle costs.

(c) USE IN NON-FEDERAL STRUCTURES.—The Secretary shall make available to the public information on the use of life cycle cost methods in the construction of buildings, structures, and facilities in all segments of the economy.

SEC. 546. BUDGET TREATMENT FOR ENERGY CONSERVATION MEASURES.

Each agency, in support of the President's annual budget request to the Congress, shall specifically set forth and identify funds requested for energy conservation measures under section 549.

SEC. 547. INCENTIVES FOR AGENCIES.

Each agency shall establish a program of incentives that uses internal resources to encourage that agency to conserve and make more efficient use of energy. Such a program shall consist of arrangements in which the managers of Federal buildings or communities of Federal buildings of the agency retain a portion of the dollar savings which result from their energy conservation measures. Such dollar savings shall remain available for obligation without further appropriation to undertake additional energy conservation measures. An additional portion may be retained for furthering the objectives of that agency.

SEC. 548. INTERAGENCY ENERGY MANAGEMENT TASK FORCE.

(a) In order to assist the interagency committee organized under section 656 of the Department of Energy Organization Act (42 U.S.C. 7266) to coordinate the activities of the Federal Government in promoting energy conservation and the efficient use of energy and inform non-Federal entities of the Federal experience in energy conservation, an Interagency Energy Management Task Force, referred to in this section as the "Task Force", shall be established.

(b) The Task Force shall be composed of the chief energy managers of the agencies represented on the interagency committee organized under section 656 of the Department of Energy Organization Act (42 U.S.C 7266). The Assistant Secretary of Energy for Conservation and Renewable Energy shall be the Director of the Task Force and may request the participation of any other agency or office as is deemed appropriate.

(c) The Task Force shall meet when the Director requests, but not less often than twice a year, to assess the progress of the various agencies in achieving energy savings; to collect and disseminate to agencies, States, local governments, and the public, information on effective survey techniques, innovative approaches to the efficient use of energy, incentive programs developed under section 547, innovative performance contracting methods, the use of cogeneration and renewable resources, and other information and technologies that would promote the conservation and the efficient use of energy; to coordinate energy surveys conducted by the agencies; to develop options for use in conserving energy; and to report to the committee organized under section 656 of the Department of Energy Organization Act (42 U.S.C. 7266).

(d) The Task Force shall, from time to time, as may be necessary, review the regulations relating to building temperature settings to

determine whether or not changes in such regulations would be appropriate to meet the goals of the Act.

SEC. 549. ENERGY MANAGEMENT GOALS.

(a) ENERGY PERFORMANCE GOAL FOR FEDERAL BUILDINGS.—Each agency shall apply energy conservation measures to and shall improve the design for the construction of its Federal buildings and communities of Federal buildings so that the energy consumption per gross square foot of the agency's Federal buildings and communities of Federal buildings in use during the fiscal year ending September 30, 1995, is at least 10 percent less than the energy consumption per gross square foot of its Federal buildings and communities of Federal buildings in use during the fiscal year ending September 30, 1985. Except that a building, and the associated energy consumption and gross square footage, that houses energy intensive activities may, at the discretion of the agency operating that building, be excluded from the requirements of this section. Each agency shall identify and list those buildings designated for exclusion from coverage under this section in its periodic report required in section 550.

(b) IMPLEMENTATION STEPS FOR FEDERAL BUILDINGS GOAL.—To achieve the goal set in subsection (a), each agency shall—

(1) prepare or update a plan describing how the agency intends to meet the goal including designation of staff and identification of high priority projects;

(2) perform energy surveys of its Federal buildings and communities of Federal buildings to the extent necessary for implementation of this section;

(3) using the results of the energy surveys, apply to its Federal buildings and communities of Federal buildings the most life cycle cost-effective energy conservation measures in accordance with the methods and procedures specified in section 545;

(4) among federally funded measures, give priority to those having the highest savings to investment ratio, and

(5) among measures accomplished with private investment capital, give priority to those having the highest estimated net benefit to the government; and

(6) ensure that any operation and maintenance procedures applied are continued.

(c) ENERGY PERFORMANCE GOAL FOR FEDERAL PASSENGER AUTOMOBILES.—(1) Each agency shall apply appropriate procurement, operations, and maintenance policies to its passenger automobile fleet so that the fleet's energy consumption per mile driven during the fisal year ending September 30, 1995, is at least 10 percent less than the energy consumption per mile driven during the fiscal year ending September 30, 1985.

(2) For purposes of this subsection the term "passenger automobile" has the meaning given it in section 501(2) of the Motor Vehicle Information and Cost Savings Act (15 U.S.C. 2001(2)), except that the term does not include automobiles designed to perform combat related missions for the Armed Forces or designed to be used in law enforcement or emergency rescue work.

SEC. 550. REPORTS.

Each agency shall periodically furnish the Secretary with complete information on its activities under this part; on its progress in achieving the goals set in section 549; on the incentives, activities, and result of its program conducted under section 547; on obstacles encountered and recommendations to overcome such obstacles; and on its progress in achieving the goals established in the Federal Ten Year Plan required by section 381(a)(2) of the Energy Policy and Conservation Act. The Secretary shall report annually to Congress on all activities under this part on the progress made toward achievement of the objectives of this part.

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